ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF AIR

DIVISION of AIR POLLUTION CONTROL

PERMIT SECTION

PROJECT SUMMARY for the
DRAFT TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

Abbott Laboratories
100 Abbott Park Road
Abbott Park, Illinois 60064-3500

Permit Engineer/Technical Contact: Jonathan Sperry, 217/782-2113

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Springfield, Illinois

I. INTRODUCTION

This source has applied for a renewal of the Title V - Clean Air Act Permit Program (CAAPP) operating permit (I.D. 097809AAD, Permit #96010010) for its existing operation. The CAAPP is the program established in Illinois for operating permits for significant stationary sources as required by the federal Clean Air Act, as amended in 1990, and 40 CFR Part 70. Unlike state operating permits, the conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA. This document is for informational purposes only and does not shield the Permittee from enforcement actions or its responsibility to comply with applicable regulations. This document shall not constitute a defense to a violation of the Act or any rule or regulation.

A Title V permit contains conditions listing the applicable state and federal air pollution control regulations that apply to a source. The permit conditions also establish emission limits, appropriate compliance procedures, and specific operational flexibility. The appropriate compliance procedures may include monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis to demonstrate that the source is operating in accordance with the requirements of the permit.

Major changes from the previous version of this permit include:

1. Added equipment constructed from 2001 to 2004 and addressed in construction permits, including pharmaceutical manufacturing equipment, a small boiler, and 5 generators;

2. Added existing boilers from the K-Complex building, an adjacent facility determined to be a single source (for Title V purposes) with Abbott Laboratories;

3. Updated and simplified references to the federal standards for pharmaceutical production (40 CFR Part 63, Subpart GGG); and

4. Added emission control monitoring plans for units subject to the Compliance Assurance Monitoring regulation (40 CFR Part 64).

II. SOURCE DESCRIPTION INFORMATION

a. <u>Location and nature of business</u>

Abbott Laboratories (Abbott) is located at 100 Abbott Park Road in unincorporated Lake County. Abbott is a worldwide health care corporation with its headquarters located at this site, also known as Abbott Park. This permit addresses operations at the Abbott Park Facility and the K-Complex Facility. The K-Complex Facility is located at the corner of U. S. Highway 41 and Martin

Luther King Drive in North Chicago and is contiguous to the Abbott Park Facility.

The source conducts manufacturing and packaging of solid dosage form pharmaceuticals (tablets, capsules, and granules), preparation and filling of bulk solutions for diagnostic kit reagents, final packaging and distribution of diagnostic kits, and research and development activities from bench-scale through small pilot plant processes. In addition, manufacturing support services are provided, including boilers, chillers, emergency generators, and other support operations.

b. National Ambient Air Quality Standard status for this area

This permit is issued based on the source being located in an area that, as of the date of permit issuance, is designated nonattainment for the National Ambient Air Quality Standards for ozone (moderate nonattainment) and $PM_{2.5}$ and attainment or unclassifiable for all other criteria pollutants (CO, lead, NO_2, PM_{10}, SO_2).

c. Major source status

The proposed permit is based on:

1. The source requiring a CAAPP permit as a major source of CO, NO_x, PM_{10}, SO_2, VOM and HAP emissions.

2. The source requiring a CAAPP permit because the source is subject to a standard, limitation, or other requirement under Section 111 (NSPS) or Section 112 (HAPs) of the CAA for which USEPA requires a CAAPP permit, or because the source is in a source category designated by the USEPA (see Condition 5.2 of the proposed permit).

d. Significant emission units

Emission Unit	Description	Date Constructed	Emission Control Equipment
G-0502	Day Mixing Co. Model No. 5201 Masser (SPM Day Masser)	1981	Dust Collector 17 (U-1815)
D-0964	Warm Air Dryer 1	1982	None
D-0965	Warm Air Dryer 2	1982	None
D-0966	Warm Air Dryer 3	1982	None
D-0967	Warm Air Dryer 4	1982	None
G-0716	Glen Model No. ER 64 340 Masser (Glen Masser)	1958	Dust Collector 17 (U-1815)

Emission Unit	Description	Date Constructed	Emission Control Equipment
G-0336	Fitzpatrick Co. Series 1606 Mill (SPM Milling)	1965	Dust Collector 17 (U-1815) and Dust Filter AS17
G-0522	Sweco Co. Model No. U5485 Mill (SPM Sweco)	1998	Dust Collector 21 (LC932987)
G-0393	Collette Model No. 1200 Gral (Gral #1)	1982	Dust Collector 14 (U-1811) and Dust Filter AS14
G-0583	Collette Model No. 1200 Gral (Gral #2)	1995	Dust Collector 14 (U-1811) and Dust Filter AS14
LC936001	Collette Model No. 1200 Gral (Gral #3)	1998	Dust Collector 23 (U-1814)
D-0917	Aeromatic Model No. T-8 2400 Fluid Bed Dryer (FBD #1)	1982	Internal Filters
D-0955	Aeromatic Model No. T-8 2400 Fluid Bed Dryer (FBD #2)	1982	Internal Filters
LC933770	Aeromatic Model No. MP-8 Fluid Bed Dryer (FBD #3)	1998	Internal Filters
G-0324	Sweco Model No. LS48S Mill (HVM Sweco)	1968	Dust Collector 13 (U-1810) and Dust Filter AS13
LC929589	Model No. 54856886 Mill (HVM Sweco #2)	1998	Dust Collector 13 (U-1810) and Dust Filter AS13
G-0392	Sweco Model No. 5560588 Mill (HVM Sweco #3)	1998	Dust Collector 22 (U-1813)
G-0391	Patterson-Kelly Co. Model No. 263993 Blender (Blender #1 150 cu ft)	1982	Dust Collector 12 (U-1809) and Dust Filter AS12
G-0349	Patterson-Kelly Co. Model No. 263993 Blender (Blender #2 150 cu ft)	1972	Dust Collector 10 (U-1807) and Dust Filter AS10
G-0284	Patterson-Kelly Co. Blender (Blender #3 75 cu ft)	1963	Dust Collector 12 (U-1809) and Dust Filter AS12
G-0267	Patterson-Kelly Co. Blender (Blender #4 30 cu ft)	1957	Dust Collector 10 (U-1807) and Dust Filter AS10

Emission Unit	Description	Date Constructed	Emission Control Equipment
W-0252	Kinetic Dispersion Model No. 20 T Mill (Kady Mill)	1982	None
Q-2157	500 Gallon Coating Mix Tank (Tablet Coating Mix Tank #1)	1982	None
Q-2158	500 Gallon Coating Mix Tank (Tablet Coating Mix Tank #2)	1982	None
Q-2156	500 Gallon Coating Mix Tank (Tablet Coating Mix Tank #3)	1982	None
Q-2155	500 Gallon Coating Mix Tank (Tablet Coating Mix Tank #4)	1975	None
Q-2722	500 Gallon Coating Mix Tank (Tablet Coating Mix Tank #5)	1975	None
Q-2725	300 Gallon Coating Mix Tank (Tablet Coating Mix Tank #6)	1975	None
Q-2723	300 Gallon Coating Mix Tank (Tablet Coating Mix Tank #7)	1982	None
Q-2724	300 Gallon Coating Mix Tank (Tablet Coating Mix Tank #8)	1982	None
Q-2151	300 Gallon Jacketed Coating Mix Tank (Tablet Coating Mix Tank #9)	1982	None
Q-2726	300 Gallon Jacketed Coating Mix Tank (Tablet Coating Mix Tank #10)	1975	None
Q-2149	300 Gallon Jacketed Coating Mix Tank (Tablet Coating Mix Tank #11)	1975	None
Q-2150	300 Gallon Jacketed Coating Mix Tank (Tablet Coating Mix Tank #12)	1982	None
Q-2576	Four Corp. 300 Gallon Jacketed Coating Mix Tank (Mix Tank T-25)	1985	None
Q-2577	Four Corp. 300 Gallon Jacketed Coating Mix Tank (Mix Tank T-26)	1985	None
Q-2598	Northland Stainless Inc. 150 Gallon Jacketed Coating Mix Tank (Mix Tank T-28)	1989	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
D-1351	Spinning Disc Granule Manufacturing and Coater (Spinning Disc)	1994	Dust Collector 19
169C	Weigh/Staging Room 169C	1998	Dust Collector 24 (LC940515)
SSME	Semi-Solid Mfg. Encapsulator (Semi-Solid Capsule Fill)	1995	None
LC936004	Collette Model No. Gral 300 Liter (300 L Gral 4 (Clinical))	1998	Dust Collector 24 (LC940515)
LC935370	GLB Glatt Air Tech. Model No. GPCG-60 Fluid Bed Dryer 4 (Clinical)	1998	Internal Filters
LC940173	Sweco Mill (Sweco (Clinical))	1998	Dust Collector 24 (LC940515)
LC928144	Particle Coater (Particle Coater (Clinical))	1998	None
P-0204, P-0259, P-0301, P-0316, P-0315	Stokes Tri-Pac, Manesty Models BB3B and Rotapress Tablet Compressors (Tablet Compressing Booth 1)	1983	Dust Collectors 7B and 7C
S-4176	Bosch Encapsulator (Tablet Compressing Booth 2)	Unknown	Dust Collectors 7B and 7C
LC982816	Elisabeth Hata Press (Tablet Compressing Booth 3)	2001	Dust Collector 7-3
LC980670	Fette Model #2090 Tablet Compressor (Tablet Compressing Booth 4)	2001	Dust Collector 7-4
P-0550	Fette Model #2090 Tablet Compressor (Tablet Compressing Booth 5)	1985	Dust Collector 7-5
P-0374	Fette Model #2000 Tablet Compressor (Tablet Compressing Booth 6)	1991	Dust Collector 7-6
LC949481	Fette Model #1200 Tablet Compressor (Tablet Compressing Booth 7)	1998	Dust Collectors 7B and 7C
LC803695	IMA Encapsulator (Tablet Compressing Booth 8)	Unknown	Dust Collectors 7B and 7C
S-4128	Capsule Encapsulator (Tablet Compressing Booth 9)	Unknown	Dust Collectors 7B and 7C

Emission Unit	Description	Date Constructed	Emission Control Equipment
Line 8	AP16A Filling Line 8	2002	Torit Dust Collector LC-907329
Portable Equipment	Portable Tanks, Mills, Sifter, Granulators, and Oscillators	-	None
LC907238	Thomas Engineering Model No. 48 Tablet Coater (Accela Cota #1)	1973	Dust Collector #1, Thermal Oxidizer #1, and Thermal Oxidizer #2
LC907239	Thomas Engineering Model No. 48-M111 Tablet Coater (Accela Cota #2)	1980	Dust Collector #1, Thermal Oxidizer #1, and Thermal Oxidizer #2
S-2661	Thomas Engineering Model No. 60-111 Tablet Coater (Accela Cota #3)	1982	Dust Collector #3 and Thermal Oxidizer #2
S-2660	Thomas Engineering Model No. 60-111 Tablet Coater (Accela Cota #4)	1982	Dust Collector #4 and Thermal Oxidizer #2
S-3142	GLB Glatt Air Tech. Model No. GPCG-300 Particle Coater (Particle Coater)	1985	Dust Collector #U-2230 and Thermal Oxidizer #1
TA-5	7,000 Gallon Ethanol Storage Tank (Tank TA-5)	1985	bottom fill lines, conservation vent
TA-6	7,000 Gallon Ethanol Storage Tank (Tank TA-6)	1985	bottom fill lines, conservation vent
4AP	Lasker Boiler and Engineering Corporation Class J-28.75 Coal/Natural Gas Fired Boiler (Boiler 4AP, 83 mmBtu/hr, coal; 60 mmBtu/hr, natural gas)	1964	Fly Ash Collector U-720

Emission Unit	Description	Date Constructed	Emission Control Equipment
5AP	Lasker Boiler and Engineering Corporation Class J-28.75 Coal/Natural Gas Fired Boiler (Boiler 5AP, 83 mmBtu/hr, coal; 60 mmBtu/hr, natural gas)	1964	Fly Ash Collector U-722
6AP	Nebraska Boiler Co., Inc. Model NS-E-69 Fuel Oil/Natural Gas Fired Boiler (Boiler 6AP, 89 mmBtu/hr, fuel oil; 98.4 mmBtu/hr, natural gas)	1981	None
7AP	Nebraska Boiler Co., Inc. Model NS-F-65 Fuel Oil/Natural Gas Fired Boiler (Boiler 7AP, 92.9 mmBtu/hr, fuel oil; 97.1 mmBtu/hr, natural gas)	October 1993	Low NO_x Burners
R-2	Nebraska Boiler Model No. NOS.2A.67 Natural Gas Fired Boiler (R-2 Rental Boiler, 88 mmBtu/hr)	September 1998	Low NO_x Burners
C13A	York International Model YPC-FN-20G-46-C-s Natural Gas-Fired Chiller (Chiller 13A, 13.738 mmBtu/hr)	April 1996	Low NO_x Burner
C14	Caterpillar, Inc. Model 3608SI Natural Gas-Fired Chiller (Chiller 14, 19 mmBtu/hr)	September 1992	Chiller 14 Engine Catalytic Converter
AP50-2	Weil McLain Model BG-988-WF-WB-MO-CSDI-UL Natural Gas Fired Boiler (Boiler AP50-2, 3 mmBtu/hr)	October 2001	None
AP50-1	Weil McLain Model PG-988-WF-PF-LO-UL Natural Gas Fired Boiler (Boiler AP50-1, 2.71 mmBtu/hr)	August 1995	None
AP52-1	Burnham Model 3P-350-50LB Natural Gas Fired Boiler (Boiler AP52-1, 14.6 mmBtu/hr)	July 1981	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
AP52-2	Burnham Model 3P-350-50LB Natural Gas Fired Boiler (Boiler AP52-2, 14.6 mmBtu/hr)	June 1987	None
AP52-3	Burnham Model 3P-350-50LB Natural Gas Fired Boiler (Boiler AP52-3, 14.6 mmBtu/hr)	June 1987	None
AP52-6	Hurst Boiler Model No. S4-X-350-150 Natural Gas Fired Boiler (Boiler AP52-6, 14.7 mmBtu/hr)	May 1997	None
AP-5	Cummins Model DQKC Diesel-Fired Generator (Emergency Diesel Generator AP-5, 2000 kW)	May 2003	None
AP-7	Cummins Model DQKC Diesel-Fired Generator (Emergency Diesel Generator AP-7, 2000 kW)	May 2003	None
K-14	Cummins Model DQKC Diesel-Fired Generator (Emergency Diesel Generator K-14, 2000 kW)	April 2003	None
AP14C	Caterpillar Model #3516/E275 Diesel-Fired Generator (Emergency Diesel Generator AP14C, 1500 kW)	June 1985	None
K2-1	Cleaver Brooks Model LR-614-35 Natural Gas Fired Boiler (Boiler K2-1, 15 mmBtu/hr)	Oct. 1982	None
K2-2	Cleaver Brooks Model LR-614-35 Natural Gas Fired Boiler (Boiler K2-2, 15 mmBtu/hr)	Oct. 1982	None
K8-1	Clayton Model EG-2041 Natural Gas Fired Boiler (Boiler K8-1, 8.4 mmBtu/hr)	1992	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Mobile Generator 1	Cummins Model DQKC Diesel-Fired Generator (2000 kW)	Nov. 2004	None
Mobile Generator 2	Cummins Model DQKC Diesel-Fired Generator (2000 kW)	Nov. 2004	None
Fugitive PM Emissions	Traffic Areas, Parking Lots, and Coal Piles	-	None
Fugitive VOM Emissions	Equipment Leaks and Cleanup Operations	-	None

III. EMISSIONS INFORMATION

The proposed permit limits the source wide maximum annual emissions from significant emission units at the source. Insignificant activities at this source are not accounted for in the source-wide limit. Further unit specific emission unit limitations are found within Sections 5 and 7 of the proposed permit.

For purposes of fees, the source is allowed the following emissions:

Pollutant	Tons/Year
Volatile Organic Material (VOM)	149.87
Sulfur Dioxide (SO_2)	1,021.61
Particulate Matter (PM)	214.19
Nitrogen Oxides (NO_x)	598.71
Hazardous Air pollutant (HAP), not included in VOM or PM	75.63
TOTAL	2,060.01

This proposed permit contains terms and conditions that address the applicability, and, if determined applicable, substantive requirements of Title I of the Clean Air Act (CAA) and regulations promulgated thereunder, including 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the proposed permit by T1, T1R, or T1N. Any conditions established in a construction permit [T1] pursuant to Title I and not revised or deleted in this proposed permit, remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them. Where the source has requested that the Illinois EPA establish new [T1N] or revise [T1R] such conditions in a Title I permit, those conditions are consistent with the information provided in the Title V application and will remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them.

This proposed permit does establish newly revised [T1R] requirements.

IV. EMISSIONS CONTROL PROGRAMS INFORMATION

a. Emissions Reduction Market System (ERMS)

Because this source is located in the Chicago ozone non-attainment area and emits volatile organic material (VOM), the proposed permit includes conditions to implement the Emissions Reduction Market System (ERMS). The ERMS is a market-based program designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as further described in Section 6.0 of the proposed permit. The proposed permit contains the Illinois EPA's determination of the source's baseline emissions and allotment of trading units under the ERMS, and identifies units not subject to further reductions.

V. COMPLIANCE ASSURANCE MONITORING (CAM) PLAN INFORMATION

The Compliance Assurance Monitoring (CAM) plan is a program for pollutant-specific emission units which use an add-on control device to achieve compliance with an emission limitation or standard, has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than major source threshold levels, and is not specifically exempt by 40 CFR Part 64. Subject units and the CAM plans are identified in Attachment 3 of the proposed permit.

VI. OTHER PERTINENT INFORMATION

a. Risk Management Plan (RMP)

A risk management plan (RMP) is a program required for a source affected by Chemical Accident Prevention for reducing the levels of emissions during an emergency, consistent with safe operating procedures. If the Permittee becomes subject to the RMP then the Permittee would be required to immediately implement the appropriate steps described in this plan should an emergency be declared. The Permittee then would be required to maintain and have this plan on file with the Illinois EPA.

b. Episode Action Plan (EAP)

An episode action plan (EAP) is a program for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating

procedures. The Permittee is required to immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared. The Permittee is required to maintain and have this plan on file with the Illinois EPA.

VII. COMPLIANCE INFORMATION

The source has certified compliance with all applicable rules and regulations; therefore, a compliance schedule is not required for this source.

VIII. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a Title V permit. The Illinois EPA is therefore proposing to issue a Title V permit, subject to the conditions proposed in the draft permit.

Comments are requested by the Illinois EPA for the proposed permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 166.

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